

AMENDMENTS TO THE CLAIMS:

Claims 1-52 (Cancelled)

53. (Currently amended) A method for a data processing system to efficiently identify at least one ~~data-set~~dataset from a collection of datasets according to a query containing information indicative of desired datasets, wherein each dataset includes one or more data points and each data point corresponds to at least one of a word, a phrase, a sentence, a color, a typography, a punctuation, a picture, and a character string, the method comprising the machine-executed steps:

constructing a semantic vector for each dataset;

receiving the query containing information indicative of desired datasets;

constructing a semantic vector for the query;

comparing the semantic vector for the query to the semantic vector of each dataset;

selecting datasets whose semantic vectors are closest in distance to the semantic vector for the query; and

outputting information of the selected datasets to be corresponding to the desired datasets identified in the query;~~generating a result including information of the selected datasets according to a result of the selecting step;~~

wherein:

the query or each of the datasets includes at least one data point; and

the semantic vector for the query or each of the datasets is constructed by the steps of:

for each data point, ~~constructing a table for storing information indicative of~~ identifying a
relationship between each data point and predetermined categories corresponding to dimensions
in the semantic space;

determining the significance of each data point with respect to the predetermined
~~categories; categories, wherein the significance represents a relative strength of each data point~~
relative to each of the predetermined particular categories, or a degree of relevance of each data
point relative each of the predetermined particular categories;

constructing a semantic vector for each data point, wherein each semantic vector has
dimensions equal to the number of predetermined categories and represents the relative strength
of its corresponding data point with respect to each of the predetermined categories; and

~~combining-based on~~ the semantic vector for each of the at least one data point, point to
form the semantic vector of the query or each of the datasets.

54. (Original) The method of Claim 53, wherein the datasets correspond to
documents and the query is a natural language query.

55. (Previously Presented) The method of Claim 53, further comprising the steps:
performing a second search for datasets within the collection of datasets, wherein the
second search using a method other than semantic vectors;

combining the two search results to obtain a combined weighted score for each dataset in
either of the two search results;

selecting datasets whose combined weighted score is largest.

56. (Original) The method of Claim 53, further comprising a step of clustering the
selected datasets in real time.

57. (Currently amended) A method for efficiently identifying data points in a semantic lexicon related to a dataset, wherein the dataset includes one or more data points and each data point corresponds to at least one of a word, a phrase, a sentence, a typography, a punctuation, and a character string, the method comprising the machine-executed steps:

constructing a semantic vector for the dataset;

comparing the semantic vector for the dataset to a semantic vector of each of the data points in the semantic lexicon;

selecting data points whose semantic vectors are closest in distance to the semantic vector for the dataset; and

~~adding~~ associating said selected data points to said dataset;

wherein:

~~the dataset includes at least one data point; and~~

the semantic vector for the dataset is constructed by the steps of:

for each data point, ~~constructing a table for storing information indicative of identifying a~~ relationship between each data point and predetermined categories corresponding to dimensions in the semantic space;

determining the significance of each data point with respect to the predetermined categories, wherein the significance represents a relative strength of each data point relative to each of the predetermined particular categories, or a degree of relevance of each data point relative each of the predetermined particular categoriescategories;

constructing a semantic vector for each data point, wherein each semantic vector has dimensions equal to the number of predetermined categories and represents the relative strength of its corresponding data point with respect to each of the predetermined categories; and

~~combining based on the~~ semantic vector for each of the at least one data ~~point to point,~~
form the semantic vector of the dataset.

58. (Original) The method of Claim 57, wherein the dataset is a document and the data points are words.

59. (Original) The method of Claim 57, wherein the dataset is a natural language query in a search system and the data points are words.

Claims 60-64 (Cancelled)

65. (Currently amended) A system for identifying at least one data set from a collection of datasets according to a query containing information indicative of desired datasets, wherein each dataset includes one or more data points and each data point corresponds to at least one of a word, a phrase, a sentence, a color, a typography, a punctuation, a picture, and a character string, the system comprising:

a computer configured to:

construct a semantic vector for each dataset;

receive the query containing information indicative of desired datasets;

construct a semantic vector for the query;

compare the semantic vector for the query to the semantic vector of each dataset;

select datasets whose semantic vectors are closest in distance to the semantic vector for the query; and

~~generate a result including information of the selected datasets according to a result of the selecting step~~
output information of the selected datasets to be corresponding to the desired datasets identified in the query;

wherein:

the query or each of the datasets includes at least one data point; and

the semantic vector for the query or each of the datasets is constructed by the machine-executed steps of:

for each data point, ~~constructing a table for storing information indicative of~~identifying a relationship between each data point and predetermined categories corresponding to dimensions in the semantic space;

determining the significance of each data point with respect to the predetermined ~~categories, wherein the significance represents a relative strength of each data point relative to each of the predetermined particular categories, or a degree of relevance of each data point relative each of the predetermined particular categories~~categories;

constructing a semantic vector for each data point, wherein each semantic vector has dimensions equal to the number of predetermined categories and represents the relative strength of its corresponding data point with respect to each of the predetermined categories; and

~~combining based on~~ the semantic vector for each of the at least one data point ~~to point~~, form the semantic vector of the query or each of the datasets.

Claims 66-70 (Cancelled)

71. (Currently amended) A tangible computer-readable medium carrying one or more sequences of instructions for efficiently identifying at least one data set from a collection of datasets according to an ~~inquiry query~~ containing information indicative of desired datasets, each dataset including one or more data points and each data point corresponding to at least one of a word, a phrase, a sentence, a color, a typography, a punctuation, a picture, and a character string,

wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

- constructing a semantic vector for each dataset;
- receiving the query containing information indicative of desired datasets;
- constructing a semantic vector for the query;
- comparing the semantic vector for the query to the semantic vector of each dataset;
- selecting datasets whose semantic vectors are closest in distance to the semantic vector for the query; and

~~generating a result including information of the selected datasets according to a result of the selecting step;~~
outputting information of the selected datasets to be corresponding to the desired datasets identified in the query;

wherein:

the query or each of the datasets includes at least one data point; and

the semantic vector for the query or each of the datasets is constructed by the steps of:

for each data point, ~~constructing a table for storing information indicative of~~identifying a relationship between each data point and predetermined categories corresponding to dimensions in the semantic space;

determining the significance of each data point with respect to the predetermined categories, wherein the significance represents a relative strength of each data point relative to each of the predetermined particular categories, or a degree of relevance of each data point relative each of the predetermined particular categoriescategories;

constructing a semantic vector for each data point, wherein each semantic vector has dimensions equal to the number of predetermined categories and represents the relative strength of its corresponding data point with respect to each of the predetermined categories; and

~~combining based on~~ the semantic vector for each of the at least one data ~~point to point~~,
form the semantic vector of the query or each of the datasets.

Claims 72-75 (Cancelled)